Empirical Evidence on Explicit and Implicit Corporate Tax Burdens for Public Listed Companies in the People’s Republic of China

Submitted by Jifeng Cao to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Accountancy in March 2012

This thesis is available for Library use on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.

I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

Signature:..........................................................
Abstract

This thesis seeks to contribute to the Chinese taxation literature by researching effective tax rate (ETR), marginal tax rate (MTR) and implicit tax in particular. These areas have been addressed for a number of years within the developed market context, whereas the same research for companies in developing countries is largely non-existent in Western literature.

The first topic is the ETR and MTR analysis. The ETR analysis offers an overview of the actual tax burden for listed companies in the People’s Republic of China (PRC), together with the Statutory Tax Rate (STR) analysis, which incorporates the tax structure aspect of tax preferences from 1994 to 2006. In 2002, the State Council stopped unauthorised corporate tax rebate from local government and 2002 became a breaking point of the corporate tax analysis. The ETR and STR analyses reveal that companies benefitted widely from tax preferences before 2002 regardless of their industry or region. However, after 2002, the ETRs increased significantly overall and the industrial and regional ETR differences are much more significant. The tax preferential industries and regions’ companies are still in the lower ETR and STR range, but the non-tax preferential companies’ ETRs and STR increased significantly after 2002. This evidences the effectiveness of Chinese tax preference policies. The MTR estimations are the first Chinese company specific MTR estimations. The MTRs were estimated from 1995 to 2002 and the MTRs results are generally consistent with ETR results, except that the MTR estimations jointly depend on the company Net Operating Loss (NOL) occurrences, income and STR.

The second topic is the determinants of ETR. An alternative view of ETR determinants is proposed. It incorporates the accounting-tax conformity theory and identifies a tax rate preference as the new ETR determinant variable to fit the Chinese taxation context. Five explanatory variables are hypothesized in associating company characteristics after controlling the company location, industry and sample period.
dummy variables. These explanatory variables are tax rate preference, non-operating expenses, investment gain, provision for impairment and government ownership. The ETR determinants model is also examined by OLS regression (cross-sectional), and fixed-effects and random effects regression (panel data analysis). The results show that all of the explanatory variables are statistically significant coefficients with expected signs. The results also demonstrate that the proposed ETR determinant model is superior to previous determinant models.

The third topic is implicit tax research. The results are evidence of the existence of implicit tax at the corporate level. The relationships between the company Pre-tax Return of Equity (PTROE) and tax preference variables and other control variables are also examined. The results demonstrate that there is a negative relationship between PTROE and tax rate preference when considering the companies aggregately in a large scale; and there is a positive relationship between PTROE and income related tax preference when considering the companies individually. The contradictory results indicate that in reality, the imperfect market conditions impede the realisation of implicit tax at the individual company level.
TABLE OF CONTENTS

ACKNOWLEDGEMENTS ................................................................. 2
ABSTRACT .................................................................................. 3

TABLE OF CONTENTS............................................................... 5
LIST OF TABLES ........................................................................ 8
LIST OF FIGURES ...................................................................... 10
LIST OF APPENDICES ............................................................. 11
LIST OF ABBREVIATIONS .......................................................... 12

CHAPTER ONE: INTRODUCTION
  1.1 Background to the study ...................................................... 14
  1.2 Issues and motivation ........................................................ 16
  1.3 Aims and objectives of the study ........................................ 17
  1.4 Contribution to knowledge ............................................... 18
  1.5 Structure of the thesis ...................................................... 20

CHAPTER TWO: A BACKGROUND TO THE PEOPLE’S REPUBLIC OF CHINA
  2.1 Introduction ..................................................................... 23
  2.2 Brief history of corporate tax development ..................... 23
    2.2.1 The socialist economy taxation period ...................... 23
    2.2.2 The socialist transitional economy period ............... 26
      2.2.2.1 Economic reform ................................................. 26
      2.2.2.2 Establishment of corporate income tax ............. 28
      2.2.2.3 Open door policy ............................................... 29
    2.2.3 The socialist market economy taxation period ......... 30
      2.2.3.1 Taxation reform ................................................... 31
      2.2.3.2 Unifying domestic and foreign corporate taxes .... 32
      2.2.3.3 Enterprise income tax sharing system ................ 33
  2.3 Enterprise income tax and its incentives ......................... 35
    2.3.1 Enterprise income tax ............................................... 35
    2.3.2 Enterprise income tax incentives ............................. 40
  2.4 Development and features of stock market ..................... 44
  2.5 Evolution of accounting systems for listed companies .... 47
    2.5.1 Basic format of financial statements ....................... 52
  2.6 Conclusion ...................................................................... 56

CHAPTER THREE: LITERATURE REVIEW
  3.1 Introduction ................................................................. 58
  3.2 Effective Tax Rate and Marginal Tax Rate research ......... 58
    3.2.1 ETR research .......................................................... 58
      3.2.1.1 Development of ETR research .......................... 59
      3.2.1.2 Measurement of ETR ....................................... 64
3.2.1.3 Disadvantages of computing ETR from financial statements… 72
3.2.1.4 ETR research in the PRC……………………………………. 74
3.2.2 MTR research.................................................................. 75
  3.2.2.1 Company specific MTR research............................... 76
  3.2.2.2 Company specific MTR proxies................................. 78
3.3 Determinants of corporate ETRs........................................ 81
  3.3.1 Company specific characteristic category.................. 86
  3.3.2 Other specific characteristics determinants............. 89
  3.3.3 Company management decisions category............. 91
  3.3.4 ERT determinant studies in the PRC......................... 97
3.4 Implicit tax research....................................................... 98
  3.4.1 Corporate implicit tax research development........ 101
3.5 Conclusion........................................................................ 107

CHAPTER FOUR: EFFECTIVE TAX RATE AND MARGINAL TAX RATE
4.1 Introduction....................................................................... 110
4.2 Research design.................................................................. 110
4.3 ETR....................................................................................... 112
  4.3.1 Methodology................................................................. 112
  4.3.2 Sample and data............................................................. 116
  4.3.3 Results and analysis....................................................... 120
     4.3.3.1 Statutory tax rate analysis........................................ 120
     4.3.3.2 Effective tax rates descriptive statistics............... 124
     4.3.3.3 Annual ETR analysis................................................. 129
     4.3.3.4 Industry tax preference analysis......................... 134
     4.3.3.5 Regional tax preferences analysis..................... 148
4.4 MTR................................................................................... 160
  4.4.1 Methodology................................................................. 160
  4.4.2 Data............................................................................. 165
  4.4.3 Results and analysis....................................................... 167
4.5 Conclusion........................................................................ 177

CHAPTER FIVE: DETERMINANTS OF EFFECTIVE TAX RATE
5.1 Introduction....................................................................... 180
5.2 Methodology..................................................................... 180
  5.2.1 Prior ETR determinant study methodology............. 180
  5.2.2 Research theoretical background......................... 182
  5.2.3 Research empirical model......................................... 186
     5.2.3.1 Dependent variable............................................... 186
     5.2.3.2 Explanatory variable............................................. 187
     5.2.3.3 Regression model............................................... 190
  5.2.4 Replication of prior ETR determinants studies........ 192
5.3 Data..................................................................................... 198
5.4 Results and analysis......................................................... 200